IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

RAGIL et al. Examiner: Tam M. Nguyen

Serial No.: 10/042,248 Group Art Unit: 1764

Filed: January 11, 2002

Title: HIGH OCTANE NUMBER GASOLINES AND THEIR PRODUCTION USING A PROCESS ASSOCIATING HYDROISOMERIZATION AND SEPARATION

APPEAL BRIEF

Mail Stop: AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Further to the Notice of Appeal filed on May 2, 2007, and further to the pre-appeal brief request for review filed on May 2, 2007, please consider the following.

The Commissioner is hereby authorized to charge the $ 510.00 Appeal Brief fee and any fees associated with this response, or credit any overpayment to Deposit Account No. 13-3402.

(i) REAL PARTY IN INTEREST

The real party in interest is Institut Francais du Petrole.

(ii) RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences.

(iii) STATUS OF CLAIMS

Claims 6-9, 11-26, 29-34 and 38-42 are pending in the present application.

Claims 1-5, 10, 27, 28 and 35-37 were cancelled.

Claims 6-9, 11-26, 29-34 and 38-42 were rejected.

Claims 6-9, 11-26, 29-34 and 38-42 are on appeal.

(NOTE: The final Office Action dated January 3, 2007, erroneously identifies cancelled claims 27 and 28 as pending and rejected. Claims 27 and 28 were cancelled in the Reply filed on October 16, 2006.)

(iv) STATUS OF AMENDMENTS

No amendments were filed after the final rejection dated January 3, 2007.

(v) SUMMARY OF CLAIMED SUBJECT MATTER

Appellants' invention is directed

in claim 6, to a process for producing a gasoline stock by hydro-isomerisation of a feed constituted by a C5 to C8 cut or fraction thereof containing straight chain, mono-branched, di-branched and tri-branched paraffins and including at least C7 paraffins, and optionally naphthenes and aromatic compounds (see page 1, first paragraph), wherein said feed is a fresh feed not previously treated so as to separate di-branched and tri-branched paraffins therefrom (see page 11, last paragraph, page 16, last paragraph, page 17, first paragraph, and page 20, second paragraph), where the process comprises conducting hydro-isomerization of the fresh feed in at least one hydroisomerization section, and performing a separation of effluent from hydroisomerization producing at least two streams, where a first stream is rich in di- and tri-branched paraffins is sent to a gasoline pool and a second stream is rich in straight-chain paraffins and mono-branched paraffinsm which second stream is recycled to the hydro-isomerization section (see page 1, second paragraph);

in claim 7, to a process generally as discussed above with regard to claim 6, but reciting that there be at least two hydroisomerization sections and that the separation produce at least three streams, where a second stream which is rich in straight-chain paraffins is recycled to an inlet of the first hydro-isomerization section, and a third stream which is rich in mono-branched paraffins is recycled to an inlet of the second hydro-isomerization section (see page 2, first full paragraph), and wherein the operating conditions of the first and second hydroisomerization sections are different and where the at least one separation section is downstream of the at least two hydroisomerization sections (see page 18, first paragraph, and page 22, last paragraph);

in claim 38, to a process generally as discussed above with regard to claim 6, but reciting that the separation produces at least two streams: a first stream rich in straight-chain paraffins which is recycled to the at least one first hydroisomerization section; and at least

one second stream rich in mono-branched paraffins and optionally naphthenic compounds and aromatic compounds, which at least one second stream is passed to at least one second hydroisomerization section to convert a portion of the mono-branched paraffins to multi-branched paraffins, and passing the effluent from the at least one second hydroisomerization section to at least one second separation section to produce at least two effluents, one effluent rich in mono-branched paraffins which is recycled to said at least one second isomerization section, and another effluent rich in di- and tri-branched paraffins and optionally naphthenic and aromatic compounds, and optionally passing the second effluent to a gasoline pool (see Fig. 2.2A, page 16, first paragraph, and page 20, second paragraph); and

in claim 39, to a process generally as discussed above with regard to claim 6, but reciting that the separation produces at least three streams: a first stream rich in straight-chain paraffin which is recycled to said at least one first isomerization section, a second stream rich in multi-branched and optionally naphthenic compounds and aromatic compounds and a third stream rich in mono-branched paraffins, and passing the third stream to at least one second hydro-isomerization section to convert mono-branched paraffins to multi-branched paraffins, and recycling the resultant effluent from the at least one second hydroisomerization section to the at least one separation section (see Fig. 2.2C, page 16, first paragraph, and page 21, last paragraph).

(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds for rejections are:

1) the rejections under 35 U.S.C. § 112, first paragraph, i.e., whether claims 6, 7, 12-25, 29-34, 38, 39 and 42 comply with the written description requirement, and

2) the rejections under 35 U.S.C. § 103, i.e., whether claims 6-9, 11, 40 and 41 are unpatentable over Stem et al., US 4,982,048.

(vii) ARGUMENT

Issue 1 – The Rejection Under 35 USC § 112, first paragraph

All the independent claims, i.e., claims 6, 7, 38 and 39, recite that the "feed is a fresh feed not previously treated so as to separate di-branched and tri-branched paraffins therefrom."

Said recitation is rejected as allegedly not complying with the written description

requirement without providing any reason as to why the description is not adequate in reasonably conveying to one of ordinary skill in the art that applicants had possession of the claimed invention.

The law is clear and well settled in that literal support for claim language is not required. See, for example, *In re Wertheim,* 541 F.2d 257, 191 USPQ 90 (CCPA 1976), holding that adequate description under the first paragraph of 35 U.S.C. 112 does not require ***literal*** support for the claimed invention. The *Wertheim* court stated that

> If lack of literal support alone were enough to support a rejection under § 112, then the statement ... that "the invention claimed **does not have to be described in ipsis verbis** in order to satisfy the description requirement of § 112," is empty verbiage. (Emphasis added.) (Internal citations omitted.)

The correct analysis was set forth in *Eiselstein v. Frank*, 34 USPQ2d 1467 (Fed. Cir. 1995), holding that

> The test is whether the disclosure of the application relied upon **reasonably conveys** to a person skilled in the art that the inventor **had possession of the claimed subject matter**. (Emphasis added.) (Internal citations omitted.)

Likewise in the present case, no literal support for the claim language at issue is present. However, applicants submit that the claimed concept is present in the original disclosure, and such is how one of ordinary skill in the art would understand the description of the invention.

For example, the following language is present in the specification (citations are to the paragraph numbers appearing in the published application, i.e., in US 2002/0175109):

> [0030] It [the feed] is **mainly composed of** straight-chain, mono-branched **and multi-branched paraffins**, naphthenic compounds such as dimethylcyclopentanes, aromatic compounds such as benzene or toluene and possibly olefinic compounds. The term "multi-branched paraffins" includes all paraffins with a degree of branching of two or more.
>
> ...
>
> [0045] In variation 2.1a (FIG. 2.1A), **fresh feed** (stream 1) **containing** straight-chain, mono-branched **and multi-branched paraffins**, also naphthenic compounds and aromatic compounds, is mixed with a recycle of straight-chain paraffins from the separation section 4 (stream 10).

...

[0046] In variation 2.1b (FIG. 2.1B), **fresh feed** (stream 1) **containing** straight-chain, mono-branched **and multi-branched paraffins**, naphthenes and aromatic compounds, is mixed with stream 14 from hydro-isomerisation section 3, then the resulting mixture 23 is sent to separation section 4.

...

[0055] The **fresh feed** (stream 1, FIG. 2,2A) **containing** straight-chain, mono-branched and **multi-branched paraffins**, naphthenic compounds and aromatic compounds, is mixed with an effluent 9 which is rich in straight-chain paraffins from separation section 4, then the resulting mixture 33 is sent to hydro-isomerisation section 2 which converts a portion of the straight-chain paraffins to mono-branched paraffins and a portion of the mono-branched paraffins to multi-branched paraffins. (Emphasis added.)

To one of ordinary skill in the art reading the application, notably the cited material above, would be reasonably conveyed the claimed concept that applicants' invention is directed to a process wherein the feed is a fresh feed not previously treated so as to separate di-branched and tri-branched paraffins therefrom.

For example, the feed is paragraph 30 is described to be mainly composed of various components among which multi-branched paraffins, e.g., di-branched and tri-branched paraffins, appear. Likewise, paragraphs 45, 46 and 55 describe a fresh feed that contains various components among which multi-branched paraffins appear. One of ordinary skill in the art would understand the description of these feeds to refer to feeds which have not undergone a process step where the di-branched and tri-branched paraffins were removed (pretreatment step hereinafter). If such a pretreatment step would be within the possibilities for the feed prior to being subjected to the remainder of the claimed process, the feed would not have been described as being mainly composed of, e.g., multi-branched paraffins among other components, or as a fresh feed containing multi-branched paraffins.

Further reasons for why one of ordinary skill in the art would have understood the feeds of the claimed invention based on the description of the application to not undergo a pretreatment step are provided in an expert Declaration under 37 CFR 1.132 by Dr. Slavik Kasztelan which was filed with the Reply dated October 16, 2006. See evidence appendix.

The Declaration sets forth, e.g., that there is no indication of any separation of multi-branched species prior to the feed passing to an isomerization step, and one page 16, line 23, there is the specific statement that "fresh" feed is employed. Furthermore, the Declaration explains in detail that the nature of the feed described on pages 12 and 13 of the application,

including hydrocracking naphthas and cuts from atmospheric distillation as well as light reformats as noted in the last example of the specification, would include straight chain, mono branched, di-branched and tri-branched paraffins including at least C7 paraffins. The declaration also states that it is clear from the specification including the description of Figure 1-A that fresh feeds have not been treated so as to remove the di-branched and tri-branched paraffins. Instead, the specification reasonably conveys that the entire feed is passed to the claimed process.

Moreover, the burden is on the PTO to establish, i.e., give reasons, why the application's description does not satisfy the written description requirement. See, e.g., *Wertheim*, stating that

> The burden of showing that the claimed invention is not described in the specification rests on the PTO in the first instance, and it is up to the **PTO to give reasons** why a description not in ipsis verbis is insufficient. (Emphasis added.)

In the present case no reasons were provided for the rejection, but merely allegations were made that the specification does not reasonably convey to one of ordinary skill in the art the claimed concept. Nowhere does the Office Action explain why and how the specification fails to reasonably convey the claimed process. As such, the USPTO has not met its burden of establishing compliance with the written description requirement of 35 USC 112, first paragraph.

Issue 2 – The Rejection Under 35 USC § 103

Stem teaches an invention where the process specifically has as its objective the pretreatment of the feed prior to sending it to the remaining process steps. In this regard, see the following matter appearing in the description of Stem:

> This invention relates to a process which ultimately enhances the octane of a refinery gasoline blending pool. The octane is increased by the use of a **select feed pretreatment** preceding isomerization. This select pretreatment enables the segregation of said feed into a portion which is increased in value by isomerization from that portion which would be diminished in value by isomerization. (See column 1, lines 9-16.)
> ...
> A means to accomplish this goal is to formulate and develop an ideal **pre-isomerization separation step** using a multiple number of

different shape selective molecular sieves. (See column 1, lines 54-59.)

...

Object of this invention is to provide a unique multiple separatory sieve sequence to **pretreat** an isomerization zone feed stream **to preserve** (before isomerization) constituents within said feed, such as aromatics, naphthenes, and **di-branched paraffins**, which would be diminished in value if they were passed to isomerization. (See column 3, lines 60-66.)

...

Object of this invention is to provide a unique isomerization process whereby a **feed stream** to an isomerization zone will contain both normal and mono-methyl-branched paraffins but essentially **exclude multi-branched paraffins**, cyclic paraffins and aromatics ... (See column 3, lines 67 to column 4, line 3.)

...

One of the advantageous aspects of this invention is the fact that **di-methyl-branched paraffins**, cyclic paraffins and aromatics are **not passed to the isomerization zone**. (See column 9, line 54-57.) (Emphasis added.)

It is clear that an objective the invention of Stem is to preserve multi-branched paraffins from cracking during isomerization, and that all embodiments taught therein include a pretreatment step to achieve said objective, in which pretreatment said multi-branched paraffins are removed and not passed to isomerization and to the rest of the process steps.

Thus, the teachings of Stem are directly contrary to the claimed invention which recites that feed is a fresh feed not previously treated so as to separate di-branched and tri-branched paraffins therefrom." Nothing in Stem would lead one of ordinary skill in the art to modify the process therein to achieve the claimed process. As such, there is no obviousness.

The Office Action alleges that the primary purpose of Stem is to isomerize only the normal paraffins, and therefore, one would omit the pre-treating steps when the feed comprises primarily normal paraffins.

However, all the independent claims of the present application recite that the "**feed** [is] constituted by a C5 to C8 cut or fraction thereof **containing** straight chain, mono-branched, **di-branched and tri-branched paraffins** and including at least C7 paraffins." (Emphasis added.) Thus, a feed not containing di-branched and tri-branched paraffins is not a feed according to the invention.

Moreover, Stem teaches that

> In order to take full advantage of the highlights of this invention, the **feed material should contain an amount of di-branched paraffinic hydrocarbons** which ar[e] known for their high octane value worthy of separation. (See column 5, lines 51-55.) (Emphasis added.)

Thus, one or ordinary skill in the art would use the process of stem with feeds that do contain di-branched paraffins, and thus, would not contemplate using the same with feeds comprising primarily normal paraffins.

Reversal of the rejections is respectfully and courteously requested.

Respectfully submitted,

/Csaba Henter/

Csaba Henter (Reg. No. 50,908)
Anthony J. Zelano (Reg. No. 27,969)
Attorneys for Applicant(s)

MILLEN, WHITE, ZELANO
& BRANIGAN, P.C.
Arlington Courthouse Plaza 1, Suite 1400
2200 Clarendon Boulevard
Arlington, Virginia 22201
Telephone: (703) 243-6333
Facsimile: (703) 243-6410

Attorney Docket No.: PET-1710-C01

Date: January 8, 2008

CH/AJZ/pdrK:\PET\1710\C1\Appeal Brief.doc

(viii) CLAIMS APPENDIX

Claim 6 A process for producing a gasoline stock by hydro-isomerisation of a feed constituted by a C5 to C8 cut or fraction thereof containing straight chain, mono-branched, di-branched and tri-branched paraffins and including at least C7 paraffins, and optionally naphthenes and aromatic compounds wherein said feed is a fresh feed not previously treated so as to separate di-branched and tri-branched paraffins therefrom, said process comprising:

conducting hydro-isomerization of said fresh feed in at least one hydro-isomerization section comprising at least one reactor; and

performing a separation of effluent from said hydroisomerization section in at least one separation section comprising at least one adsorption separation unit or at least one permeation separation unit wherein said separation produces at least two streams:

a first stream rich in di- and tri-branched paraffins, and optionally contains naphthenes and aromatic compounds, which is sent to a gasoline pool to provide a minimum content of 2% by weight of C7 - di-branched paraffins in the gasoline pool;

and a second stream rich in straight-chain paraffins and mono-branched paraffins, and

recycling said second stream into said at least one hydro-isomerization section.

Claim 7 A process for producing a gasoline stock by hydro-isomerization of a feed constituted by a C5 to C8 cut or fraction thereof containing straight chain, mono-branched, di-branched and tri-branched paraffins and including at least C7 paraffins, and optionally naphthenes and aromatic compounds comprising:

conducting hydro-isomerization in at least two hydro-isomerization sections and performing a separation in at least one separation section comprising at least one adsorption separation unit or at least one permeation separation unit in which the separation section produces three streams:

a first stream which is rich in di and tri-branched paraffins, and optionally contains naphthenes and aromatic compounds, which is sent to a gasoline pool to provide a minimum content of 2% by weight C7-di-branched paraffins in the gasoline pool; a second stream which is rich in straight-chain paraffins which is recycled to an inlet of the first hydro-isomerization section; and a third stream which is rich in mono-branched paraffins which is recycled to an inlet of the second hydro-isomerization section, and

wherein the operating conditions of the first and second hydroisomerization sections are different and said at least one separation section is downstream of the at least two hydroisomerization sections,

wherein said feed is a fresh feed not previously treated so as to separate di-branched and tri-branched paraffins therefrom.

Claim 8 A process according to claim 9, in which all of the effluent from said first hydro-isomerization section traverses said second hydro-isomerization section.

Claim 9 A process according to claim 7, wherein:

the feed is mixed with the straight-chain paraffins recycled from the separation section and the resultant mixture is sent to the first hydro-isomerization section,

effluent leaving the first hydro-isomerization section is mixed with the stream which is rich in mono-branched paraffins from the separation section and the resultant mixture is sent to the second hydro-isomerization section, and

effluent from the second hydro-isomerization section is sent to the separation section.

Claim 11 A process according to claim 7, in which the effluents from the hydro-isomerisation sections are sent to at least one separation section.

Claim 12 A process according to claim 6, in which the separation section comprises at least two distinct units to carry out two different types of separation.

Claim 13 A process according to claim 6, in which the separation section comprises one or more sections operating by adsorption and the feed contains more than 12 mole % C7+.

Claim 14 A process according to claim 6, in which the separation section comprises one or more sections operating by permeation.

Claim 15 A process according to claim 12, in which the separation section comprises at least one unit operating by adsorption and at least one unit operating by permeation.

Claim 16 A process according to claim 6, in which at least one light fraction is separated by distillation in a distillation column downstream of the hydro-isomerization and/or separation sections, said light fraction having an average boiling point lower than the average boiling point of feed entering said distillation column.

Claim 17 A process according to claim 6, in which the feed contains a C5 cut and at least one deisopentanizer and/or at least one dependanizer are located downstream of the hydro-isomerization and/or separation sections.

Claim 18 A process according to claim 6, in which the feed contains a C6 cut but contains no C5, and at least one deisohexinizer is located downstream of the hydro-isomerization and/or separation sections.

Claim 19 A process according to claim 16, in which the light fraction or isopentane and/or pentane and/or a mixture of the two, or hexane, act as an eluent or a flushing gas for the adsorption or permeation separation unit, respectively.

Claim 20 A process according to claim 6, in which butane and/or isobutane is used as an eluent or a flushing gas for the adsorption or permeation separation unit, respectively.

Claim 21 A process according to claim 17, in which the isopentane is sent to the gasoline pool.

Claim 22 A process according to claim 6, in which the feed comprises at least 12 mole % of hydrocarbons containing at least 7 carbon atoms.

Claim 23 A process according to claim 6, in which the feed comprises at least 15 mole % of hydrocarbons containing at least 7 carbon atoms.

Claim 24 A process according to claim 6, in which hydro-isomerization is carried out at temperatures in the range 25□C to 450□C, at a pressure in the range 0.01 to 7 MPa, at a space velocity in the range 0.5 to 2 kg feed/kg catalyst/hr, and with an H2/hydrocarbons molar ratio in the range 0.01 to 50.

Claim 25 A process according to claim 6, in which separation is carried out at temperatures in the range 50°C to 450°C and at a pressure in the range 0.01 to 7 MPa.

Claim 26 A process according to claim 7, wherein at least one light fraction is separated by distillation downstream of the hydro-isomerisation and/or separation sections, the feed comprises at least 12 mole % of hydrocarbons containing at least 7 carbon atoms, and wherein the hydro-isomerisation is conducted at 50°C-450°C at a pressure of 0.01-7 mPa, at a space velocity in the rage 0.5 to 2 kg feed/kg catalyst/hr, and with an H2/hydrocarbons molar ratio in the range 0.01 to 50.

Claim 29 A process according to claim 6, wherein said feed is a C7-C8 straight run cut.

Claim 30 A process according to claim 6, wherein said content of di-branched paraffins containing 7 carbon atoms is at least 3%.

Claim 31 A process according to claim 6, wherein said content of di-branched paraffins containing 7 carbon atoms is at least 4.5%.

Claim 32 A process according to claim 38, in which the feed comprises at least 12 mol% of hydrocarbons containing at least 7 carbon atoms.

Claim 33 A process according to claim 39, in which the feed comprises at least 15 mol% of hydrocarbons containing at least 7 carbon atoms.

Claim 34 A process according to claim 6, wherein the content of C5- di-branched paraffins in said stream rich in di and tri-branched paraffins is 12.6 to 14.9% by weight.

Claim 38 A process for producing a gasoline stock by hydro-isomerisation of a feed constituted by a C5 to C8 cut or fraction thereof containing straight chain, mono-branched, di-branched and tri-branched paraffins and including at least C7 paraffins, and optionally naphthenes and aromatic compounds comprising:

conducting hydroisomerization of said feed in at least one first hydroisomerization

section;

passing effluent from said first isomerization section to a first separation section comprising at least one adsorption separation unit or at least one permeation unit wherein said at least one separation unit produces at least two streams: a first stream rich in straight-chain paraffins which is recycled to said at least one first hydroisomerization section; and at least one second stream rich in mono-branched paraffins and optionally naphthenic compounds and aromatic compounds;

passing said at least one second stream to an at least one second hydroisomerization section to convert a portion of the mono-branched paraffins to multi-branched paraffins;

passing effluent from said at least one second hydroisomerization section to at least one second separation section to produce at least two effluents, one effluent rich in mono-branched paraffins which is recycled to said at least one second isomerization section, and another effluent rich in di- and tri-branched paraffins and optionally naphthenic and aromatic compounds, and optionally passing said second effluent to a gasoline pool and

wherein said feed is a fresh feed not previously treated so as to separate di-branched and tri-branched paraffins therefrom.

Claim 39 A process for producing a gasoline stock by hydro-isomerisation of a feed constituted by a C5 to C8 cut or fraction thereof containing straight chain, mono-branched, di-branched and tri-branched paraffins and including at least C7 paraffins, and optionally naphthenes and aromatic compounds comprising:

conducting hydroisomerization of said feed in at least one first hydroisomerization section;

passing effluent from said first hydro-isomerization section to at least one separation section comprising at least one adsorption separation unit or at least one permeation unit wherein said at least one separation unit produces at least three streams: a first stream rich in straight-chain paraffin which is recycled to said at least one first isomerization section, a second stream
rich in multi-branched and optionally naphthenic compounds and aromatic compounds and a third stream rich in mono-branched paraffins;

passing said third stream to at least one second hydro-isomerization section to convert mono-branched paraffins to multi-branched paraffins, and recycling resultant effluent from said at least one second hydroisomerization section to said at least one separation section and

wherein said feed is a fresh feed not previously treated so as to separate di-branched and tri-branched paraffins therefrom.

Claim 40 A process according to claim 7, in which the separation section comprises one or more sections operating by permeation.

Claim 41 A process according to claim 7, in which the separation section comprises at least one unit operating by adsorption and at least one unit operating by permeation.

Claim 42 A process according to claim 6, wherein the hydroisomerization is conducted with catalyst consisting of at least one mono-functional catalyst.

(ix) EVIDENCE APPENDIX

The expert Declaration under 37 CFR 1.132 by Dr. Slavik Kasztelan which was filed with the Reply dated October 16, 2006 is attached hereto.

4220/00/JF

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

KARRINE RAGIL

Examiner: Tam M. Nguyen

Serial No.: 10/042,248

Group Art Unit: 1764

Filed: 11 January 2002

For: HIGH OCTANE NUMBER GASOLINES AND THEIR PRODUCTION USING A PROCESS ASSOCIATING HYDRO-ISOMERISATION AND SEPARATION

DECLARATION UNDER RULE 37 C.F.R.§1.132

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

I, Slavik KASZTELAN, being duly warned, declare and say as follows:

THAT, I am a French citizen holding the titles of Engineer delivered by "Ecole des Hautes Etudes Industrielles de Lille" in 1982, of "Docteur Ingénieur" delivered by "Université de Lille" in 1984, residing at 69006 Lyon, France, 97 quai Charles de Gaulle.

THAT, I have been engaged on research by "Institut Français du Pétrole" in their Kinetics and Catalysis Department since 1988, where I have been continuously and actively in charge of researches in the fields of hydrocracking, hydroisomerization, dewaxing and hydrogenation of aromatic compounds. I am since September 2002 the manager of the Division "Catalysis and Separation". I also have more than 5 years experience in designing petroleum refinery processes.

THAT, I believe that a research refinery engineer of ordinary skill in designing petroleum refinery processes has about the equivalent of my education and experience.

I declare further:

THAT, I am familiar with the contents of U.S. Patent Application Serial No. 10/042,248, filed in the United States on January 11, 2002, which relates to a process associating hydroisomerization and separation sections.

THAT, I declare that it would have been reasonable to such an engineer of ordinary skill, upon reading the present application (U.S. Patent Application Serial No. 10/042,248) to have understood that the feed to be treated is a fresh feed not previously separated to obtain di-branched and tri-branched paraffins therefrom, for the following reasons: In the processes of U.S. Patent Application Serial No. 10/042,248, there is no indication of any separation of multi-branched species prior to the feed passing to an isomerization step. On page 16, line 23, it is stated specifically that "fresh" feed is employed.

Furthermore, the nature of the feed is described on pages 12 and 13 of the application. It includes hydrocracking naphthas and cuts from atmospheric distillation as well as light reformates as noted in the last example of the specification. Common to these feeds is that they contain the straight chain, mono-branched, di-branched and tri-branched paraffins, including at least C7 paraffins. It is clear from the specification, including the description of the figure 1A that these fresh feeds have not been treated so as to remove di-branched and tri-branched paraffins. Instead, the entire feed is passed to an isomerization zone and then the separation of the resultant isomerate occurs consequently in a subsequent step.

Thus, an engineer of ordinary skill upon reading U.S. Patent Application Serial No. 10/042,248 would conclude that the inventors had possession of processes at least as early as January 11, 2002, which include the steps of claims 6, 7, 38 and 39 of the above captioned application wherein the feed is a fresh feed not previously treated so as to separate di-branched and tri-branched paraffins therefrom.

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information or belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 Title 18 of United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Rueil-Malmaison, September 19, 2006

Slavik Kasztelan

Slavik KASZTELAN

(x) RELATED PROCEEDINGS APPENDIX

None